

The embodiments of the invention for which an exclusive privilege and property right are claimed and defined as follows:

1. An airflow system adapted for receiving airflow from a refrigeration unit mounted on a front of a lead trailer, the airflow system also adapted for transferring and receiving airflow from a pup trailer pulled behind the lead trailer, the airflow system uses heated or cooled airflow discharged from the refrigeration unit inside the lead trailer to either heat or cool goods at a constant temperature, the goods stored inside the lead trailer and the pup trailer, the airflow system comprising:

a modified air chute having a first end adapted for attaching to an air discharge opening in the refrigeration unit, said air chute having a second end connected to a lead airflow transfer hole in a rear door of the lead trailer;

a transfer tube, one end of said transfer tube connected to said lead airflow transfer hole, an opposite end of said transfer tube connected to a pup airflow intake hole in the front of the pup trailer, said transfer tube for transferring airflow from the lead trailer to the pup trailer and circulating the airflow therethrough; and

a return tube, one end of said return tube connected to a pup airflow return hole in the front of the pup trailer, an opposite end of said return tube connected to a lead airflow return hole in the lead trailer's rear door, said return tube returning airflow from the pup trailer to the lead trailer for circulating the airflow through the lead trailer and recirculating the airflow back to the refrigeration unit.

2. The airflow system as described in claim 1 further including a rear door air manifold, said rear door air manifold adapted for mounting on an upper portion of the lead trailer's rear door, said rear door manifold connected to the second end of said modified air chute and disposed around said lead airflow transfer hole.

3. The airflow system as described in claim 1 wherein said lead airflow transfer hole is disposed in an upper portion of the lead trailer's rear door.

4. The airflow system as described in claim 1 wherein said lead airflow return hole is disposed in a lower portion of the lead trailer's rear door.

5. The airflow system as described in claim 1 wherein said pup airflow intake hole is in an upper portion of the front of the pup trailer.

6. The airflow system as described in claim 1 wherein said pup airflow return hole is in a lower portion of the front of the pup trailer.

7. The airflow system as described in claim 1 further including a first bulkhead with openings disposed inside the pup trailer and next to said pup airflow return hole, said first bulkhead preventing the restriction of airflow to said pup airflow return hole.

8. The airflow system as described in claim 1 further including a second bulkhead with openings disposed inside the lead trailer and next to an air return opening in the refrigeration unit, said second bulkhead preventing the restriction of recirculated airflow to the refrigeration unit.

9. An airflow system adapted for receiving airflow from a refrigeration unit mounted on a front of a lead trailer, the airflow system also adapted for transferring and receiving airflow from a pup trailer pulled behind the lead trailer, the airflow system uses

heated or cooled airflow discharged from the refrigeration unit inside the lead trailer to either heat or cool goods at a constant temperature, the goods stored inside the lead trailer and the pup trailer, the airflow system comprising:

a modified air chute having a first end adapted for attaching to an air discharge opening in the refrigeration unit, said air chute having a second end attached to a rear door air manifold, said air manifold adapted for mounting on an upper portion of a rear door of the lead trailer, said rear door manifold connected to a lead airflow transfer hole in the rear door;

a transfer tube, one end of said transfer tube connected to said lead airflow transfer hole, an opposite end of said transfer tube connected to a pup airflow intake hole in the front of the pup trailer, said intake hole is in an upper portion of the front of the pup trailer, said transfer tube for transferring airflow from the lead trailer to the pup trailer and circulating the airflow therethrough; and

a return tube, one end of said return tube connected to a pup airflow return hole in a lower portion of the front of the pup trailer, an opposite end of said return tube connected to a lead airflow return hole in a lower portion of the lead trailer's rear door, said return tube returning airflow from the pup trailer to the lead trailer for circulating the airflow through the lead trailer and recirculating the airflow back to the refrigeration unit.

10. The airflow system as described in claim 9 further including a first bulkhead with openings therein and disposed inside the pup trailer and next to said pup airflow return hole, said first bulkhead with openings preventing the restriction of airflow to said pup airflow return hole by the goods stored in the pup trailer.

11. The airflow system as described in claim 9 further including a second bulkhead with openings therein and disposed inside the lead trailer and next to an air return opening in the refrigeration unit, said second bulkhead preventing the restriction of recirculated airflow to the refrigeration unit by the goods stored in the lead trailer.

12. A method for heating and cooling a lead trailer and a pup trailer pulled behind the lead trailer using heated or cooled airflow discharged from a refrigeration unit, the refrigeration unit mounted on the front of the lead trailer, the airflow maintaining goods stored inside the lead trailer and pup trailer at a constant temperature, the steps comprising:

conveying the airflow from the refrigeration unit through an air chute to a rear of the lead trailer;

transferring the airflow from the air chute through a lead airflow transfer hole in a rear door of the lead trailer and to a transfer tube;

conducting the airflow through the transfer tube and through a pup airflow intake hole in a front of the pup trailer;

circulating the airflow through the pup trailer and back through a pup airflow return hole in the front of the pup trailer;

conducting the return airflow through the pup airflow return hole to a return tube;

returning the return airflow through the return tube and through a lead airflow return hole in the rear door of the lead trailer; and

circulating the return airflow through the lead trailer and recirculating the airflow back to the refrigeration unit.

13. The method as described in claim 12 further including the step of transferring the airflow from the air chute through a rear door air manifold mounted on an upper portion of the rear door, the rear door air manifold in turn transferring the airflow through the lead airflow transfer tube.

14. The method as described in claim 12 further including the step of circulating the airflow in the pup trailer through holes in a first bulkhead in the pup trailer prior to conducting the return airflow through the pup airflow return hole.

15. The method as described in claim 12 further including the step of circulating the return airflow through holes in a second bulkhead in the lead trailer prior to recirculating the airflow back to the refrigeration unit..